

AMENDMENTS TO THE CLAIMS

This listing of claims supersedes all prior versions and listings of claims in this application:

LISTING OF CLAIMS:

1. (currently amended) A method of sending first and second signals to a plurality of user equipments, the method comprising ~~the steps of:~~

providing ~~of~~ a dedicated channel for each one of the plurality of user equipments,
providing ~~of~~ a code-multiplexed shared channel for the plurality of user equipments,
assigning ~~of~~ an antenna of a set of antennas to each one of the plurality of user equipments,

sending ~~of~~ one of the first signals to one of the plurality of user equipments on one of the dedicated channels on a carrier frequency by applying transmit diversity,

sending ~~of~~ one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.

2. (currently amended) The method of claim 1, wherein the dedicated channel ~~being~~ is a DPCH type channel and the code-multiplexed shared channel ~~being~~ is a HS-DSCH type channel of a HSDPA type system.

3. (currently amended) The method of claim 1, further comprising ~~the steps of:~~

- assigning a carrier frequency of a set of at least first and second carrier frequencies to each one of the dedicated channels,
- assigning ~~of~~ a carrier frequency of the set of carrier frequencies to each one of the plurality of user equipments.

4. (original) The method of claim 3, further comprising applying transmit diversity for sending of the one of the second signals.

5. (currently amended) The method of claim 4, ~~whereby~~ wherein closed loop transmit diversity is applied.

6. (currently amended) A computer program product, ~~such as a digital storage medium, comprising program means~~ for enabling a computer to control a sending of first and second signals to a plurality of user equipments, ~~the program means being adapted to perform the steps of:~~ comprising:

a computer readable storage medium; and

software instructions on the computer readable storage medium adapted to enable the computer to perform operations of:

providing of a dedicated channel for each one of the plurality of user equipments,

providing of a code-multiplexed shared channel for the plurality of user equipments,

assigning of an antenna of a set of antennas to each one of the user equipments,

sending of one of the first signals to one of the plurality of user equipments on one of the dedicated channels on a carrier frequency by applying transmit diversity,

sending of one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.

7. (currently amended) A sender ~~for sending of~~ which sends first and second signals to a plurality of user equipments, the sender comprising:

a first component which provides ~~for providing of~~ a dedicated channel for each one of the plurality of user equipments,

a second component which provides ~~for providing of~~ a code-multiplexed shared channel ~~for to~~ the plurality of user equipments,

a third component ~~for assigning of~~ which assigns an antenna of a set of antennas to each one of the plurality of user equipments,

a ~~forth~~ fourth component ~~for sending of~~ which sends one of the first signals to one of the plurality of user equipments on one of the dedicated channels on a carrier frequency by applying transmit diversity,

a fifth component ~~for sending of~~ which sends one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.

8. (currently amended) The sender of claim 7 further comprising scheduler ~~means for providing~~ which provides the multi-user diversity.

9. (original) The sender of claim 7 further comprising:
means for assigning a carrier frequency of a set of at least first and second carrier frequencies to each one of the dedicated channels,
means for assigning of a carrier frequency of a set of carrier frequencies to each one of the user equipments.

10. (currently amended) A telecommunication system for sending first and second signals to a plurality of user equipments, the telecommunication system comprising:

a first component ~~for providing of~~ which provides a dedicated channel for each one of the plurality of user equipments,

a second component ~~for providing of~~ which provides a code-multiplexed shared channel for the plurality of user equipments,

a third component ~~for assigning of~~ which provides an antenna of a set of antennas to each one of the user equipments,

a ~~forth~~ fourth component ~~for sending of~~ which provides one of the first signals to one of the plurality of user equipments on one of the dedicated channels on a carrier frequency by applying transmit diversity,

a fifth component ~~for sending of~~ which provides one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.

11. (new) The method of sending first and second signals to a plurality of user equipments according to claims 1, wherein the sending one of the first signals by applying transmit diversity and the sending one of the second signals by applying multi-user diversity occurs simultaneously.